IN THE CLAIMS:

1. (Currently Amended) A process for pressure welding, ~~preferably~~ friction welding or Magnetarc welding of workpieces ~~(2, 3), characterized in that~~ the process comprising the steps of:

measuring the actual length of one or both of said workpieces ~~(2, 3)~~ and a possible length deviation Δl from a set value ~~is measured and~~;

changing a ~~that the~~ set value of at least one process parameter, ~~especially the~~ from process parameters comprising: friction length, [[the]] friction duration, [[the]] arc time ~~or the~~ and forge force, ~~is changed~~ in case of length deviations[[,]] ; and

determining a correction factor C, by which [[the]] a length deviation Δl is multiplied, ~~is determined~~ for the change.

2. (Currently Amended) A process in accordance with claim 1, ~~characterized in that~~ wherein said correction factor C is obtained empirically in a test series.

3. (Currently Amended) A process in accordance with claim 1 ~~or 2~~, ~~characterized in that~~ wherein said correction factor C is determined in an application-dependent manner.

4. (Currently Amended) A process in accordance with claim [[1,]] 2 ~~or 3~~, ~~characterized in that~~ wherein the test series are carried out in an application-specific manner on sample workpieces from [[the]] a series batch.

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5. (Currently Amended) A process in accordance with ~~one of the above claims~~ claim 1, ~~characterized in that~~ wherein the welding quality is taken into account in the determination of said correction factor C.

6. (Currently Amended) A process in accordance with ~~one of the above claims~~ claim 1, ~~characterized in that~~ wherein upper and lower limits for length deviations Δl and for said corresponding correction factors C are determined and stored, and said correction factor C is determined during the welding operation for measured length deviations Δl in this range by interpolation.

7. (Currently Amended) A process in accordance with ~~one of the above claims~~ claim 1, ~~characterized in that~~ wherein a change in friction length, Δs, is calculated as a product of a correction factor C_s by the length deviations Δl in case of friction welding with friction length control.

8. (Currently Amended) A process in accordance with ~~one of the above claims~~ claim 1, ~~characterized in that~~ wherein a change in friction duration, Δt, is calculated as the product of a correction factor C_t by the length deviations Δl in case of friction welding with friction duration control.

9. (Currently Amended) A process in accordance with ~~one of the claims 1 through 5~~

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claim 1, ~~characterized in that~~ <u>wherein</u> a change in the forge stroke, Δp, is calculated as the product of a correction factor C by the length deviations Δl in case of friction welding with short-time control.

10. (Currently Amended) A process in accordance with claim [[10]] <u>1</u>, ~~characterized in that~~ <u>wherein</u> the forge force is changed.

11. (Currently Amended) A process in accordance with ~~one of the above claims~~ <u>claim 1</u>, ~~characterized in that~~ <u>wherein</u> the process parameter is changed in terms of its characteristic, with a parameter profile varying in time and/or space.

12. (Currently Amended) A process in accordance with ~~one of the above claims~~ <u>claim 1</u>, ~~characterized in that~~ <u>wherein</u> determined correction values C with reference data for said workpieces ~~(2, 3)~~ are stored in a data bank which can be connected to [[said]] <u>a</u> pressure welding machine [[(1)]] <u>performing the welding</u>.

13. (Currently Amended) A device for pressure welding, ~~preferably~~ friction welding or Magnetarc welding of ~~said~~ workpieces ~~(2, 3)~~, <u>the device comprising:</u>

~~with~~ a feed unit ~~(7)~~ <u>;</u>

a control ~~(13)~~ <u>;</u> and

a measuring means<u>,</u> ~~characterized in that said pressure welding device (1) has a~~

measuring means (12) for determining the actual length of one or both of said workpieces (2, 3) and a length deviation Δl, wherein a set value of at least one process parameter comprising , especially the friction length, [[the]] friction duration, [[the]] arc time or [[the]] forge force, can be is changed in said control (13) in case of a length deviation Δl, said control (13) having a computing unit (14) for setting and changing set values, taking a correction factor C for said at least one process parameter into account.

14. (Currently Amended) A device in accordance with claim 13, characterized in that wherein said control (13) is programmable, wherein said computing unit (14) is connected to at least one said memory (15) and has a program for determining, especially or interpolating, the correction factor C from stored preset values.